

Claims

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1 1. A method of inducing tolerance in a recipient  
2 mammal of a first species to a tissue obtained from a mammal  
3 of a second species, which tissue expresses an MHC antigen,  
4 said method comprising

5 inserting DNA encoding an MHC antigen of said second  
6 species into a bone marrow hematopoietic stem cell from  
7 said recipient mammal, and

8 allowing said MHC antigen encoding DNA to be  
9 expressed in the recipient.

1 2. The method of claim 1, wherein said cell is  
2 removed from said recipient mammal prior to said insertion  
3 and returned to said recipient mammal after said insertion.

1 3. The method of claim 1, wherein said recipient is  
2 a human.

1 4. The method of claim 1, wherein said mammal is a  
2 swine.

1 5. The method of claim 4, wherein said swine is a  
2 miniature swine.

1 6. The method of claim 1, wherein said DNA is  
2 obtained from the individual mammal from which said tissue  
3 is obtained.

1 7. The method of claim 1, wherein said DNA is  
2 obtained from an individual mammal which is syngeneic to the  
3 individual mammal from which said tissue is obtained.

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1           8. The method of claim 1, wherein said DNA is  
2 obtained from an individual mammal which is MHC identical to  
3 the individual mammal from which said tissue is obtained.

1           9. The method of claim 1, wherein said DNA  
2 comprises an MHC class I gene.

1           10. The method of claim 1, wherein said DNA  
2 comprises an MHC class II gene.

1           11. The method of claim 1, wherein said DNA is  
2 inserted into said cell by transduction.

1           12. The method of claim 11, wherein said DNA is  
2 inserted into said cell by a retrovirus.

1           13. The method of claim 12, wherein said DNA is  
2 recipient is a human and said retrovirus is a Moloney-based  
3 retrovirus.

1           14. A method of inducing tolerance in a recipient  
2 mammal to a tissue obtained from a donor mammal of the same  
3 species, which tissue expresses an MHC antigen, said method  
4 comprising

5           inserting DNA encoding an MHC antigen of said donor  
6 into a bone marrow hematopoietic stem cell from said  
7 recipient mammal, and

8           allowing said MHC antigen encoding DNA to be  
9 expressed in the recipient.

1           15. The method of claim 14, wherein said cell is  
2 removed from said recipient prior to said insertion and  
3 returned to said recipient after said insertion.

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1           16. The method of claim 14, wherein said recipient  
2 is a human.

1           17. The method of claim 14, wherein said DNA  
2 comprises an MHC class I gene.

3           18. The method of claim 14, wherein said DNA  
4 comprises an MHC class II gene.

1           19. The method of claim 14, wherein said DNA is  
2 inserted into said cell by transduction.

1           20. The method of claim 19, wherein said DNA is  
2 inserted into said cell by a retrovirus.

1           21. The method of claim 20, wherein said retrovirus  
2 is a Moloney-based retrovirus.

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